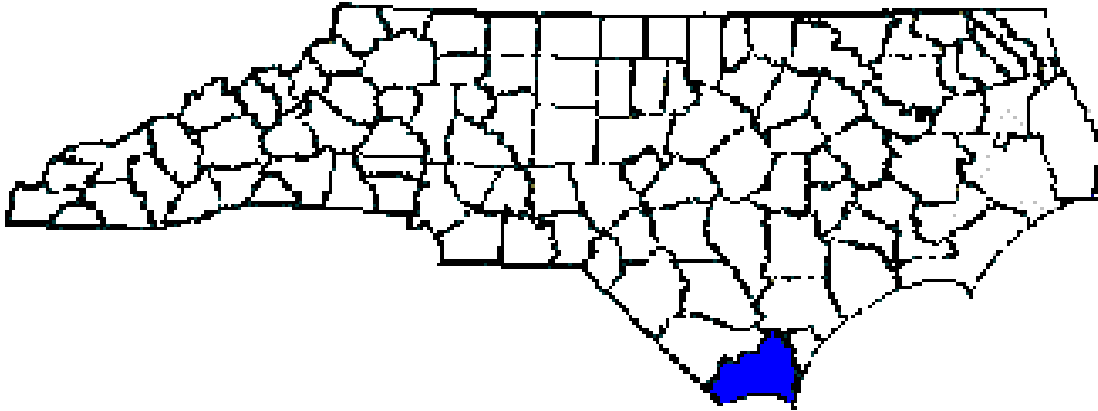


# ANNUAL REPORT FOR 2005



**Royal Oak Swamp Mitigation Site**  
**Brunswick County**  
**TIP No. B-2110**



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## **SUMMARY**

The Royal Oak Swamp Mitigation Site is located in Brunswick County. The site was planted in November 2004 and was designed as wetland mitigation for impacts associated with bridge project B-2110.

The mitigation encompasses approximately 0.29 acres total of wetland restoration. The restoration effort involved re-vegetating the area that was temporarily impacted due to the use of mechanized land clearing. The area that was impacted by mechanized clearing is being monitored to ensure that it re-attains wetland jurisdictional status. The restoration area was re-vegetated with bottomland hardwood species. No hydrologic monitoring is required for this project; however, vegetation monitoring is required for three years.

After the first year of monitoring, the Royal Oak Swamp site shows by visual observation that the tree species planted in the wetland restoration area are surviving and that the impacted area is re-attaining wetland jurisdictional status.

NCDOT recommends continuing vegetation monitoring of this site.

## **1.0 INTRODUCTION**

### **1.1 Project Description**

The Royal Oak Swamp Mitigation Site is located at Bridge No. 62 over Royal Oak Swamp on NC 211 (Figure 1). The site consists of approximately 0.29 acres of mitigation for wetland impacts associated with project B-2110.

### **1.2 Purpose**

In order for a mitigation site to be considered successful, the site must meet vegetation success criteria. This report details the vegetation monitoring in 2005 at the Royal Oak Swamp Mitigation Site. Hydrologic monitoring was not required for the site.

### **1.3 Project History**

November 2004	Site planted
July 2005	Vegetation Monitoring (1 year)

## **2.0 VEGETATION: ROYAL OAK SWAMP MITIGATION SITE (YEAR 1 MONITORING)**

### **2.1 Success Criteria**

Pictorially measured, photos will be provided at annual monitoring meeting. At the end of the third year, NCDOT, regulatory and resource agencies will meet on site and determine 75% survivability. If wetland areas temporarily impacted by this project have not re-attained wetland jurisdictional status, NCDOT and the U.S. Army Corps of Engineers shall determine whether compensatory wetland mitigation will be required.

### **2.2 Description of Species**

The following tree species were planted in the Wetland Reforestation area:

*Quercus nigra*, Water Oak

*Quercus phellos*, Willow Oak

*Taxodium distichum*, Baldcypress

*Nyssa sylvatica*, Black Gum

### **2.3 Results of Vegetation Monitoring**

The impacted area where the mechanized clearing occurred and was re-vegetated is re-attaining jurisdictional status and the planted species are surviving.

**Site Notes:** Other species noted: fennel, *Scirpus* sp., *Sagittaria* sp., goldenrod, woolgrass, black willow, cattail, *Juncus* sp., ragweed, sycamore, red maple, and cut grass.

### **2.4 Conclusions**

There were approximately 0.29 acres total of wetland restoration on site. There were no plots established on the site. By visual observation the Royal Oak Swamp site shows that the planted species are surviving and that the impacted area is re-attaining wetland jurisdictional status. Standing water was noted across the majority of the site.

## **3.0 Overall Conclusions and Recommendations**

NCDOT will continue vegetation monitoring at the Royal Oak Swamp Site.



# **APPENDIX A**

## **SITE PHOTOS**

# Royal Oak Swamp



Photo 1



Photo 2